Study Unit

Special-Purpose Rooms

By

Randy Christensen, ARIDO, IDC, NCIDQ

About the Author

Randy Christensen, an award-winning interior designer, is the president of Randy Christensen Design in Toronto, Canada. His business provides interior design solutions for residential, condominium, office, and hotel interiors.

Mr. Christensen is certified by the National Council for Interior Design Qualification (NCIDQ) in Washington, D.C. He's also a registered member of the Interior Designers of Canada (IDC) and the Association of Registered Interior Designers of Ontario (ARIDO).

Mr. Christensen has taught various interior design and interior decorating subjects for more than 25 years. He's a member of the faculty at George Brown College, Toronto, Ontario, in the interior decorating program, where he's also responsible for curriculum development. In December, 2004, he received an Award of Excellence for teaching from George Brown College.

Mr. Christensen has been published more than 25 times in leading design magazines, periodicals, and newspapers. He has also made numerous guest appearances on television and has been a guest lecturer at many interior design trade shows.

American homeowners today put a premium on large homes. The square footage of a home is considered to be a measure of quality and even status, so architects are quick to build them, and families are eager to move in.

At the same time, large families have become the exception to the rule. When two or three bedrooms are sufficient to give every family member a room of their own in a five-bedroom home, there are two extra rooms to decorate. One spare room can conveniently be made into a guest room, but that leaves another room in need of a creative alternative. Many families choose to turn that extra room into a home entertainment room—particularly if the spare room close to the living room has been turned into a dining room, rather than a den.

In some families, the children have gone to college or moved into homes of their own and left their former bedrooms empty. In others, one or more members of the family need or want a gym or office in the house.

These are just a few of the changes that have increased the opportunities for interior decorators to create special-purpose rooms for their clients. Since these rooms occupy an increasing segment of the marketplace, an interior decorator should have the ability to plan and decorate these spaces effectively.

When you complete this study unit, you'll be able to

- Plan spaces for home offices, home fitness centers, and home entertainment rooms
- Select furniture for these rooms, based on anthropometric and ergonomic principles
- Make recommendations to clients about equipment for these rooms
- Provide your clients with lighting solutions appropriate for these spaces

Preview

Contents

CREATING A HOME OFFICE 1

- Choosing Your Location 2
- Interviewing Your Clients 3
- Space Planning 5
- Anthropometrics and Ergonomics 7
- Furnishing a Home Office 11
- Lighting a Home Office 12
- Options for Office Areas 13

CREATING A HOME FITNESS CENTER 19

- Interviewing Your Clients 19
- Planning the Space 22

CREATING A HOME ENTERTAINMENT ROOM 25

- Equipment 25
- Interviewing Your Clients 27
- Television Terms 27
- Choosing a Television 29
- Converting an Armoire 31
- Custom Cabinetry Designs 32
- Special Lighting Requirements 32
- Furnishing a Home Entertainment Room 33

SELF-CHECK ANSWERS 37

EXAMINATION 39

Color is an extremely integral part of interior decorating. Therefore, as you work through your program, be sure to study the photos and illustrations in their color format, available as PDFs. To access the PDFs, log on to the Penn Foster Web site and click on **My Courses.** Then, click on the open-book icon next to the unit you're studying.

Special-Purpose Rooms

CREATING A HOME OFFICE

According to the United States Census Bureau, nearly 4.2 million Americans report that they usually work at home. This is a 23% increase over the number of people who worked at home 10 years before. These statistics represent an enormous shift in the location of workers. It represents twice the growth of the overall workforce in that same period.

From a home decorating point of view, the 23% increase isn't nearly high enough to reflect the need for home offices. The Census Bureau asked people to indicate that they *usually* worked at home only if they worked there *most days* during the week.

People who worked at home half the week or less weren't counted as at-home workers. But all at-home workers may need a home office—whether they use it half the month or only a few days a month. Since a home office sometimes qualifies as a tax deduction, homeowners have even more incentive to turn an extra room into a full-fledged office, even if they use it only part of the time.

For a home office to be successful, however, it must be decorated in a professional manner, keeping in mind the needs of the user and possibly other members of the family as well (Figure 1).

Remember to regularly check "My Courses" on your student homepage. Your instructor may post additional resources that you can access to enhance your learning experience.

FIGURE 1—Home offices may be very simple, or they may be formal and elaborate. The important factor, as usual, is that you meet the needs of your clients.

Choosing Your Location

From a decorating point of view, a home office may consist of a single piece of furniture sharing the space in a bedroom, living room, or kitchen (Figure 2). If you must plan a workspace in one of these rooms, make sure the desk or other

FIGURE 2—As a decorator, you may be called on to provide a workspace in a bedroom, kitchen, or some other room.

work surface you choose matches the decor in the rest of the room. If a more formal home office is required, then a special-purpose room should be created solely for this function.

Ideally, a home office should be located in a quiet area, away from any noisy household activities or flow of traffic through the home. Extra rooms near the front entrance of the home can make convenient home offices. Attached garages with entries into the house can be easily converted into a home workspace. Most often, however, clients are inclined to use a family room or den as their home office, if an extra bedroom isn't available.

Homeowners who convert garages into offices often choose to replace the garage door with a wall, an entrance door, and windows, to eliminate the memories of the garage altogether (Figure 3). If zoning requirements allow this change, it's an excellent option.

In some areas of the country, basements and attics are good office possibilities. While attics are unlikely to have convenient outside accesses, basements often have separate entries—highly desirable features for most home offices.

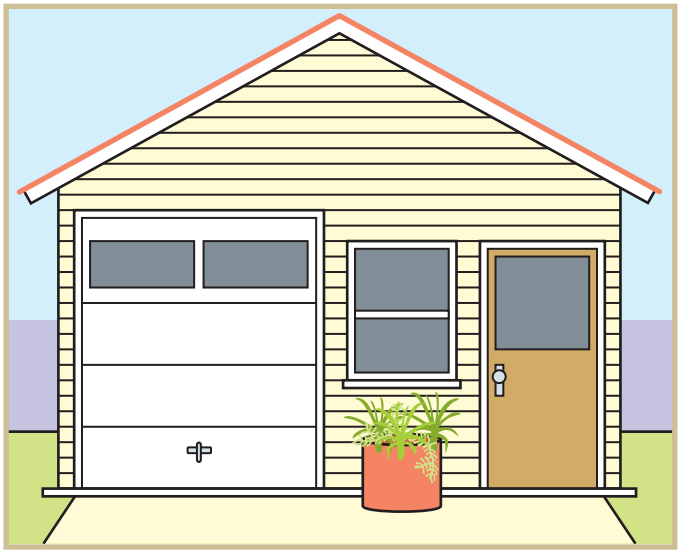

FIGURE 3—Half of this two-car garage has been converted into an office. The garage door was replaced with a wall, a window, and an entrance door.

Interviewing Your Clients

As with every aspect of home decorating, an interior decorator must analyze each client's needs, as well as the functions to be performed in the room, before starting the decorating. During the client interview, you'll be able to determine some of the most important considerations and align your vision more closely with your clients' needs.

Here are some examples of the types of questions to ask during an interview about a home office:

- How completely must the office be isolated from other household activities?

- How much workspace or task surface is required?
- What type of workspace is needed (for example, drafting boards, lighting tables, conference tables, guest seating, machinery, floor space)?
- What type of equipment will be used in the room (for example, computers, printers, occupation-specific equipment)?
- What type of filing and/or storage space will be required?
- What color scheme is most appealing to the client for this space?
- What type of atmosphere would the client like to create in the space?
- What part of the budget can be devoted to the development of this space?

A simple question like "What type of workspace is needed?" can result in an enormous range of answers. Consider the different types of workspaces (not to mention furniture, lighting, and other considerations) that would be required by the following clients:

- Music-recording technician
- Psychologist
- Veterinarian
- Graphic designer
- Upholsterer
- Day trader
- Baker
- Farmer
- Potter
- Quilt maker
- Interior decorator

As you can see, offices for each of these clients might have radically different requirements. A recording technician may need soundproof walls. A veterinarian may require cages and sanitary surfaces. An upholsterer may need additional storage space outside the workroom, while a day trader may need additional phone and Internet lines, as well as extra computer monitors. Even with only a handful of occupations, the potential variety of needs is obvious.

On the other hand, the vast majority of home offices have surprisingly similar requirements: desk space, computer equipment, phones, office furniture, and lighting. It will be to your advantage to do as many of these traditional offices as possible, so you can develop an ease and expertise in meeting these more predictable requirements.

Space Planning

Once you identify the functional use of a home office and you've itemized the types of furniture and equipment that will be needed, you can plan the room itself. Begin by taking careful measurements of the space. Make a note of all electrical outlets, telephone connections, Internet connections, television connections (if needed), window sizes, door locations, and any other elements related to the available space. Use this information to create a floor plan—either by hand or with floor-planning software. Once your floor plan is complete, use a furniture template to place the furniture and equipment into the room. Make sure the furniture is in the same scale as the floor plan. Carefully position all furniture and equipment in appropriate relation to the outlets. The floor plan in Figure 4 shows a possible layout of a home office for an interior decorator.

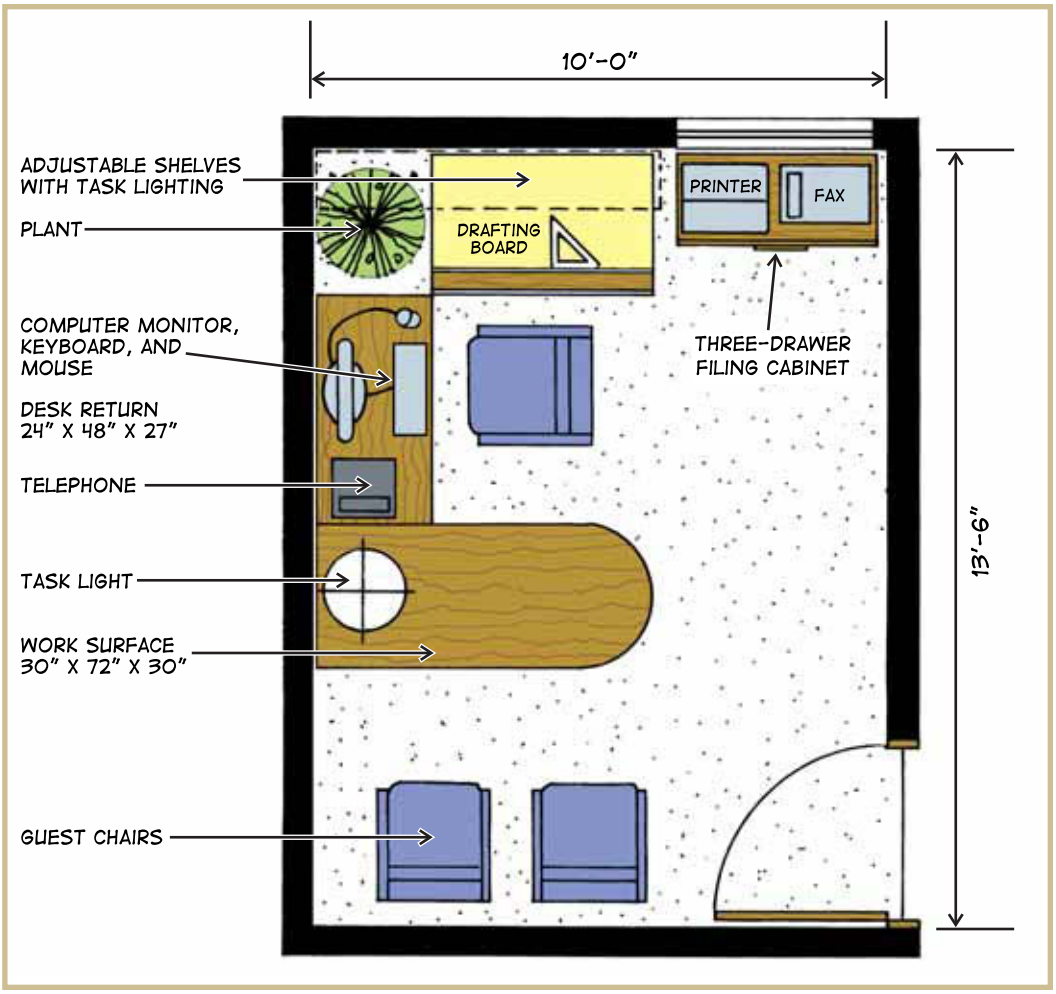

FIGURE 4—Carefully study this floor plan for the home office of an interior decorator.

An Organized Office Space

In many cases, when you decorate a home office for a client, his or her existing office clutter is waiting somewhere to fill the room. According to the *Wall Street Journal,* the average American in an office wastes six weeks a year looking for misplaced information—because of disorganized desks and files.

To correct this problem, your client must have and (even more importantly) must maintain a good organizing system. Many home offices, however, simply lack the appropriate place to put things.

In her book, *Organizing from the Inside Out,* Julie Morgenstern offers good advice about getting office organization on track. Her innovative approach organizes offices around *function* rather than *storage.* It ignores more traditional office arrangements in favor of the *actual use* a client will make of the space.

(Continued)

An Organized Office Space—Continued

As you interview clients about the specific items that they'll keep in the office, Morgenstern recommends asking, "Under what circumstances will you be looking for this?" rather than "What kind of container do you want to use for this?"

By the same token, when it comes to a filing system, she says it makes more sense to ignore alphabetizing and simply organize the files according to their general topics, such as "Accounting," "To Do," "Documents to Save," and so on.

In the office itself, this principle makes use of *Morgenstern's kindergarten classroom model.* Kindergartens are organized into activity zones—a zone for arts and crafts, for music, for nap time, and for reading. According to Morgenstern, this system is ideal for adults as well.

If you help clients organize their home offices into areas of main activities, such as client contact, research, and bill paying and writing, then everything related to each task can be placed in that zone. It's an invaluable method.

Anthropometrics and Ergonomics

Anthropometrics is the study of human body measurements. *Ergonomics* is the study of the adaptability of the workspace to match the physical needs of workers and thus reduce fatigue and discomfort. If you, as an interior decorator, take both of these elements into consideration with your home office plans, you'll provide an invaluable service to your clients.

Researchers in these two specialties have found that a U-shaped arrangement of furniture (Figure 5) is the optimum layout in a standard home office. Whether or not a U-shaped desk or wall system is used, an arrangement of workspace in this shape, with a rolling chair for the user, is ideal. The U shape allows the client to stay seated and roll around to access the computer, desktops, telephone, printer, files, and fax machine.

When a U shape isn't possible or desired, an L-shaped work station (Figure 6) is an excellent alternative. This arrangement allows space on either side of the computer for documents and office equipment.

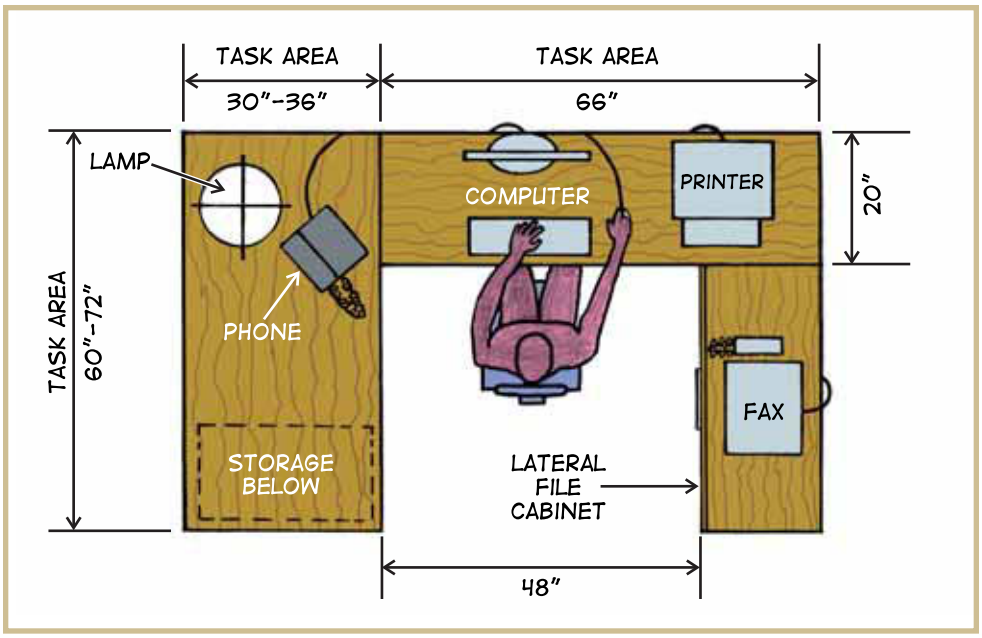

FIGURE 5—A U-shaped arrangement allows users to easily access necessary equipment and tools.

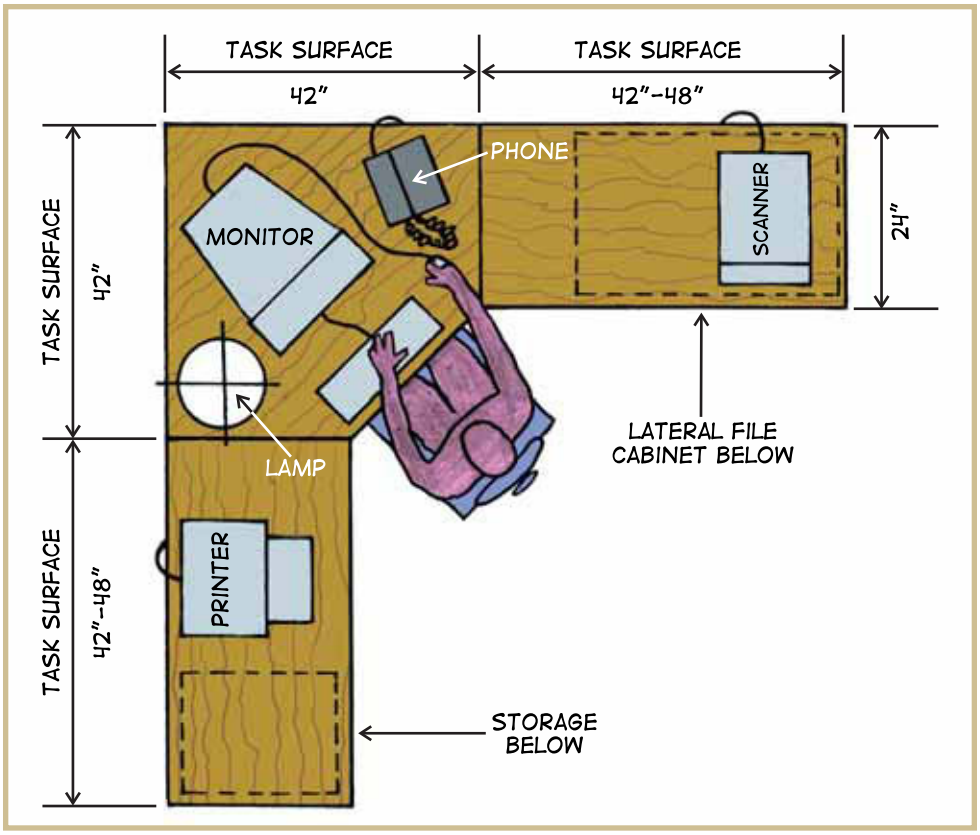

FIGURE 6—An L-shaped arrangement is also an efficient plan for a home office.

Here are some other considerations for planning a home office:

- The primary work surface should be a minimum of 30 × 60 in. (inches).
- A desktop should be 28–30 in. above the floor.
- Desk returns for computer keyboards should be a minimum of 24 × 48 in.
- Vertical storage cabinets should have a maximum height of 25–30 in. with a minimum 15 in. access above the top.

Keep in mind that all of these figures are based on general standards. They must be modified if your client is taller or shorter than the average person—or has other special needs.

Most people suffer from neck aches if they work at a table that's too low. Eye fatigue, another common office complaint, is often brought on when monitors are at the wrong height or when lighting is inadequate. When you decorate home offices, you must pay special attention to the physical comfort of your client in the space. Improperly designed work stations can lead to ailments such as carpal tunnel syndrome and lower back pain.

Here are some tips for making a workspace more ergonomically safe:

- Place the top of the computer monitor at or below eye level.
- Place the keyboard at a level that allows your client's wrists to be flat and straight.
- Eliminate glare on the screen with proper lighting and screen guards.
- Ensure that knees are slightly curved at the edge of the chair and feet are flat on the floor.
- Provide stands and task lighting for occasional tasks done beside the computer.

Even when the measurements are done correctly, your clients may want to make changes as they become more comfortable in the space. No ergonomic calculations are suitable for everyone. Once your clients have begun to use the space, they can make the adjustments that suit them—if you've provided them with furniture that's adaptable to their needs. The following list provides examples of furniture and equipment that can be adjusted to individual needs. Make sure each of these features is available when you create a standard office space:

- Chair with adjustable height and tilt
- Seating depth and width suitable for the client's body
- Seating with adequate lumbar support
- Adjustable keyboard tray height
- Appropriate desktop height for the height of the client
- Adjustable footstools that adapt to the needs of the client

When a space is decorated with the client's anthropometric and ergonomic needs in mind, it offers a healthy foundation for the home office.

Dual Monitor Mounts

Clients who prefer a truly state-of-the-art office space are increasingly choosing dual monitors for their computers. As paper begins to be seen as mere clutter, compared to digitized (and very tidy) computer files, the need for dual monitors increases.

Studies show that dual monitors are far more efficient than a single monitor. Many hours a day can be saved when computer users can glance at a reference file on a second monitor quickly, rather than flashing back and forth between screens on one monitor or surfing through directories. The lower price of monitors today gives your clients new options.

Some users prefer one large monitor and one smaller one. But the sleekest version by far is to use matching monitors, mounted conveniently together for a smooth designer addition to a work environment. It's even possible to mount four monitors together in a grid.

Furnishing a Home Office

Before you can begin to select furniture, carpeting, lighting, and accessories for a home office, you must determine your client's style preferences. Is your client comfortable in a traditional environment, or would he or she prefer something more modern? Is the office to be formal or casual? Once you know your client's style, you can begin your selections.

Work Surface

Wood veneer, which can be stained any color your client wishes, is an attractive choice for a desk or work surface. However, wood veneers are rather delicate and can be easily scratched, chipped, and dented. If your client wants a wood veneer work surface, suggest that he or she use a leather or vinyl desk pad to protect the surface.

A more practical, durable, and affordable desk surface is high-pressure plastic laminate. These laminates are available in hundreds of colors, textures, and wood grain patterns.

Upholstery

For a home office, choose a durable, commercial-grade nylon textile or leather upholstery. Fabric used in a home office should have an abrasion rating of at least 30,000 double rubs.

Carpeting

Wall-to-wall carpeting is the best selection for the floor covering in a home office. The carpet fibers provide important acoustical properties, absorbing noise from the area and providing a quieter office environment. Nylon and wool fibers are the most durable. A low-pile or looped-pile carpeting is best because the fibers are more durable and less likely to be crushed than other fibers.

Static in carpeting can create problems for computers. If a home office is carpeted, use an antistatic mat on the floor near the computer.

Colors

For a home office, choose colors that are quiet and calming. Avoid bright colors that could distract the person who is using the office.

Lighting a Home Office

Office lighting serves an important function in a home office and, therefore, must be appropriate for the various tasks that will be performed in the space.

After general room lighting, task lights are the most important lights in an office space (Figure 7). Good-quality lighting for the desks, such as task lighting with adjustable levels, should be provided. If shelves overhang the work surface, indirect task lighting can be placed beneath the lowest shelf. This indirect lighting can be in the form of a fluorescent strip or halogen lighting. The bright white light of halogen bulbs, however, isn't ideal for reading for extended periods of time. It's preferable to mix in softer light, such as daylight spectrum lighting, when halogen lighting illuminates a room or reading space. If the office itself is lit with a halogen floor lamp, for instance, the desk may have a soft light bulb to mute the harshness of the halogen's glare.

FIGURE 7—This home office space provides two task lights in the work area: one in the very center and a second one at the left end. In addition, track lighting along the far wall provides a more general lighting.

Options for Office Areas

Some homeowners have an extra room that can be used as an office space for most of the year, but does double duty as a guest room when family members arrive at holidays. Other home offices serve as an office by day and a home entertainment room or fitness center by night. The most elegantly appointed offices are those that can be decorated entirely as an office and furnished accordingly (Figure 8). When an entire room can't be devoted to an office or when the office must be used for other functions, however, there are some excellent options.

FIGURE 8—This home office is used only for one purpose. Therefore, it can be carefully arranged and decorated for the purpose for which it's intended.

Armoires

A free-standing piece of furniture, such as a cabinet or armoire, is ideal to hide an office when other things are taking place in the room. An armoire can be easily closed and even locked to conceal and protect the office. The example in Figure 9 is a 7 ft (foot) high armoire that incorporates a working surface, a filing cabinet, vertical shelving, a task light, a computer, a telephone, and a bulletin board.

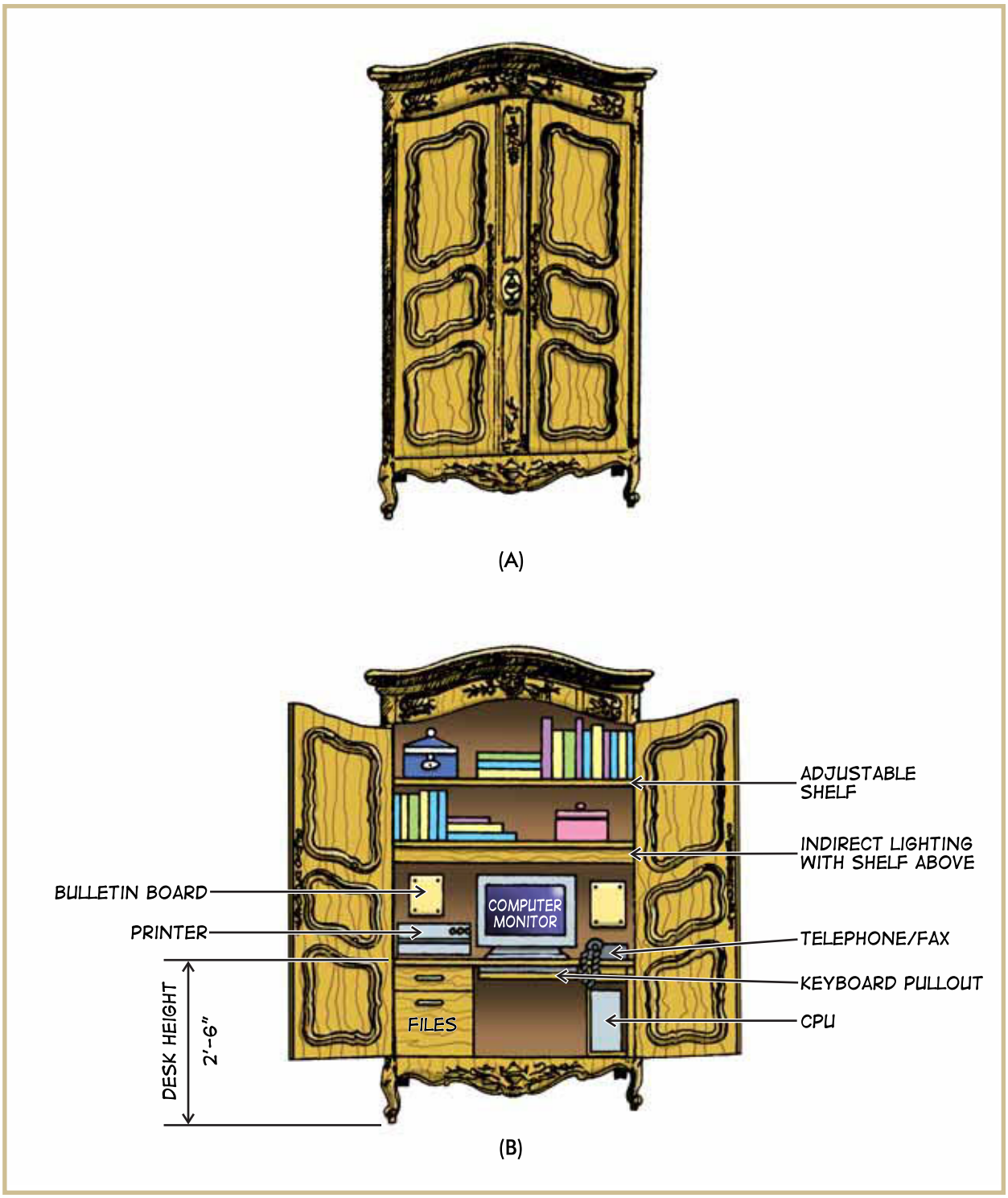

FIGURE 9—A handsome armoire can hide a home office when the office space must be used for other purposes (view A). When open, the armoire becomes a neat home office (view B).

Closet Conversion

Another option involves converting an existing closet into a built-in office. Adjustable storage shelves can be built into the closet to accommodate office needs. Indirect task lighting must be included in the space. An outlet can be moved into the closet, or a cord can be run to the outside. Like the doors on an armoire, the closet doors serve to eliminate the office from sight when the room is in use for other things. Figure 10 illustrates the floor plan (view A) and an elevation (view B) of a converted closet.

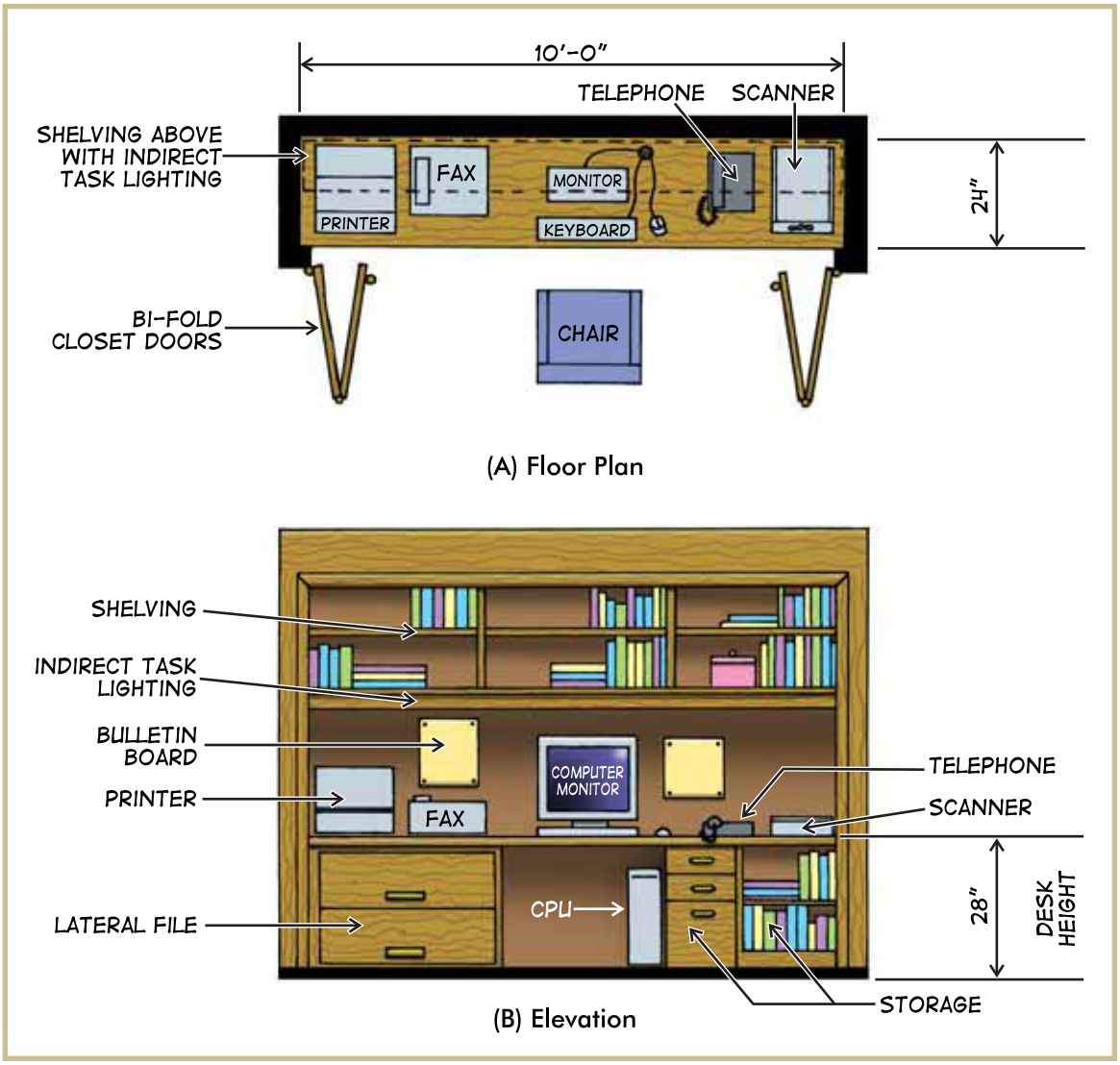

FIGURE 10—A closet can be converted into an office in a room that's occasionally used for other purposes.

Corner Office

In prestigious firms, the corner office is often the most prized. It's easy to create a "corner office" of another kind in a home.

A work surface, such as a laminate board or even a mounted tabletop, can be supported against two walls at a 90-degree angle. This arrangement allows the surface to fit conveniently into the corner of a room, rather than taking up more space than needed. Figures 11 and 12 present examples of corner office spaces in bedrooms. In the right setting, an L-shaped configuration can be used in a corner.

FIGURE 11—Corner Office in Bedroom

FIGURE 12—Corner Office in Bedroom

Local carpenters can easily and affordably cut a surface to measure and mount it on the wall. They can even create keyboard trays, if necessary. Adequate filing and storage space can be accommodated underneath the desk.

Computer Positioning and Care

Today, computers are one of the central components of home offices. Here are a few tips for integrating them into home offices, as well as providing for their care:

- Computers and carpeting aren't very compatible. Static from the carpet can damage computer circuits. If a home office is carpeted, use an antistatic mat on the floor to protect the computer. (A good antistatic spray can also reduce static buildup on the carpet.)
- Create a free flow of air around the computer to avoid heat build-up. Be sure the vents and slots that allow cooling air to circulate in the computer itself aren't blocked.
- Airborne elements, such as humidity, smoke, and dust, can harm computers. Recommend covers for the keyboard, monitor, and printer when they're not in use.
- Three-pronged electrical plugs ground the equipment. Be sure to use three-pronged electrical strips or outlets for computers. Power surge strips are also vital.

In the next section of this study unit, you'll examine some principles for creating a home fitness center. First, however, review what you've just learned about home offices by completing *Self-Check 1.*

Self-Check 1

At the end of each section of *Special-Purpose Rooms,* you'll be asked to pause and check your understanding of what you've just read by completing a "Self-Check" exercise. Answering these questions will help you review what you've studied so far. Please complete *Self-Check 1* now.

1. Why is it so important for an interior decorator to conduct research before decorating a home office?

   _____

   _____

2. Why must you place the electrical outlets and windows in a floor plan?

   _____

   _____

3. Anthropometrics is the study of _____.

4. What does the term *ergonomics* mean?

   _____

   _____

5. What type of lighting is *most* important for an office after general room lighting?

   _____

Check your answers with those on page 37.

CREATING A HOME FITNESS CENTER

Statistics indicate that obesity is on the rise in America, but that's true only among a particular cross section of people. Another sampling of people—cutting across all gender, racial, age, and economic groups—has turned its attention to fitness with renewed vigor.

Gym memberships are flourishing as never before. For those who can afford it, a home fitness center in a special-purpose room is an even better alternative. At public gyms, with literally thousands of people using the same equipment every week, bacteria can be a problem. The inconvenience of packing up a gym bag and getting to a gym can take up enough extra time and effort that people don't go, even if they would gladly exercise at home. In addition, the cost of memberships at quality gyms is high enough that, after a few years of paying expensive fees, many people feel it would be a cost-effective long-term investment to create their own gym (Figure 13).

FIGURE 13—This home fitness center includes several pieces of exercise equipment and a flat-screen television. The lighting is provided by recessed lights in the ceiling.

The process of creating a home fitness center requires careful consideration. There are safety elements involved in the creation of a home gym—factors that don't come into play in any other area of the house. People can be seriously injured if the home fitness center isn't set up properly. So do your homework and consult with an expert, if need be, to get the dimensions right.

Interviewing Your Clients

A true fitness devotee is interested in more than piling a few free weights on the side of the living room. Men and women alike are taking an interest in fitness today. When a couple or

a family has an avid fitness regimen, it makes sense to convert an entire room to a home fitness center. Home fitness centers are an increasingly popular alternative to expensive gym memberships.

There are so many options for exercise equipment and workouts that you must know exactly what your client wants before beginning to plan the room. As with the home office, a few early questions are helpful:

- What kind of exercise equipment will be used in the gym?
- What kind of exercise equipment is likely to be added to the gym in the foreseeable future?
- What are the dimensions of the equipment?
- How much does the equipment weigh? (Some equipment is heavy enough to require reinforcement of the flooring.)
- How much space must be provided around each piece of equipment? (Some machines must have sufficient space around them to accommodate the range of motion needed for using the machine.)
- Are electrical outlets needed for the equipment? If so, how many?

FIGURE 14—Mirrors on one or more walls can help those exercising to watch themselves to make sure they're using the correct form.

- Is a television screen and DVD player necessary in the room?
- Does the client want a music and sound system?
- What is the budget for the fitness center?

Clients may also want to include an area for a shower, a sauna, towel storage, a sink with a water system, a juicer, and a small refrigerator. Mirrors may be mounted on one or all of the walls (Figure 14).

Some clients prefer to have a television and DVD player in the gym to help the time pass. If a client intends to use a DVD player to watch training videos, be sure to find out how much room will be required to do the things demonstrated on the video. Step videos and dance videos require a lot of room.

Rubber flooring is popular in professional fitness centers. It doesn't cause abrasive problems as carpeting does. It's also very resilient and durable. It can stand up to the crushing that can be caused by free weights. Rubber flooring is also easily cleaned with a damp mop.

How Much Extra Space Is Needed?

Workout equipment needs at least as much open space as equipment space. But that kind of general calculation won't guarantee the results you need. A weight machine with a pulley may need to accommodate lunges plus arm movements in every direction. To decide how much space is needed around the machines, take their function into consideration. Ask your clients detailed questions about how they work out, keeping in mind that their routines may change as time goes on.

The key elements to consider are safety, aesthetics, traffic flow, existing equipment, and future expansion options. Here are some general figures to help you determine how much floor space you need for different types of equipment

Equipment	**Space Needed (in square feet)**
Treadmills	30
Bikes	10
Stair climbers	10–15
Rowing machines	25
Free weights	25–50
Ski machines	20
Single-station gyms	30
Multi-station gym	60–150

Since a client's safety is at risk in a home fitness center, seriously consider hiring a consultant to confirm the specific measurements in this special-purpose room.

Planning the Space

Once you know what equipment your client wants in the fitness center, you can begin to develop the floor plan. As always, begin by carefully measuring the room. Remember that space is especially important in a fitness center. When a number of pieces of exercise equipment will be used, the margin for error may be small. If the space is measured improperly, the client could be injured. Figure 15 shows the

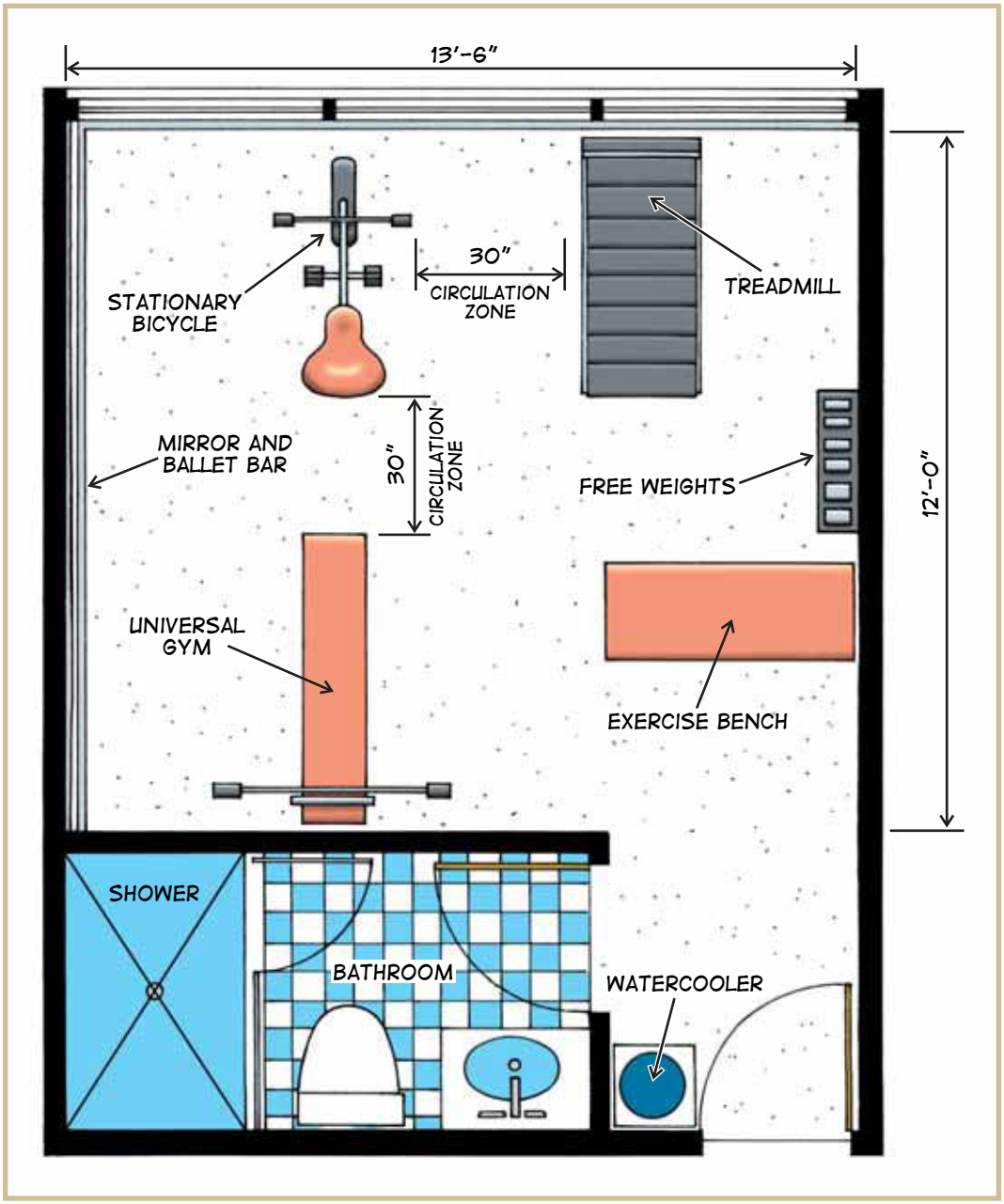

FIGURE 15—Sample Floor Plan for a Home Fitness Center

floor plan for a home fitness center. Notice that the decorator who prepared this plan has allowed at least 30 in. of floor space between machines.

Electrical outlets may be especially important in some home fitness centers as well. Avoid using extension cords as they're especially dangerous in an area of high activity. Even if the primary equipment itself isn't electrical, consider what elements may accompany the equipment. For example, fans are frequently used along with exercise bikes. If a sound system isn't incorporated into the room, a boom box may be used. Also a client may want a watercooler or refrigerator in the room. All of these elements require electrical outlets.

Keep in mind that fluorescent lighting, while unpleasant in color, can be advisable in a gym because it gives off less heat than incandescent lighting. To offset the harsh tone of the light, softer sconces can be inset to the walls.

In the last section of this study unit, you'll examine home entertainment rooms, which are a popular feature in many homes today. Before going on, please complete *Self-Check 2.*

Self-Check 2

1. Why is it so important to allow for space around the exercise equipment?

   _____

   _____

2. What type of flooring is *most* appropriate for a home fitness center? Explain your answer.

   _____

   _____

3. List at least three items that may require outlets in a home fitness center, other than the exercise equipment itself.

   _____

   _____

4. Why might a client want to have a television and DVD player in a home fitness center?

   _____

   _____

Check your answers with those on page 37.

CREATING A HOME ENTERTAINMENT ROOM

With DVD sales accounting for more than $15 billion a year, it's easy to imagine an increased need for home entertainment rooms where your clients can watch the movies they purchase. Ultimately, they may end up paying more for the DVDs and special cable subscriptions than they pay for the audiovisual equipment.

Equipment

The most expensive initial aspect of a home entertainment room is likely to be the audiovisual system. Technology is now available to dramatically improve the acoustics in a room. State-of-the-art digital screens of enormous dimensions are now very popular and readily available. Surround-sound systems that were once used only by professionals are now being incorporated into home entertainment rooms across the country.

As home electronics stores begin to offer special payment options for complex entertainment systems, many customers are investing in the home entertainment rooms of their dreams—and paying for them for years to come. Sometimes the entertainment room becomes the central hub of the living room. When a special-purpose room is set aside, however, the results are far superior. Sound systems can be built in, seating can be arranged to accommodate more comfortable viewing, and ceiling lighting can be made to dim by remote.

Many businesses today specialize in the design, supply, and installation of elaborate home theater systems. The whole philosophy of creating a home theater environment is modeled on movie cinemas. The size of the screen, the quality of sound and image, and the comfort of the seating are important elements to imitate on a home-sized scale.

If a client desires a full-blown small theater in his or her home, you can create a floor plan that reflects a real theater (Figure 16). This plan allows for aisles that permit a larger traffic flow than that needed for a typical family. The seating is staggered, as in a commercial cinema. Even a snack bar, with refrigerator, sink, coffeemaker, and popcorn maker, is included. Most families won't want their special-purpose room literally turned into a theater, but some may. Always keep some options in mind, in case the opportunity should occur.

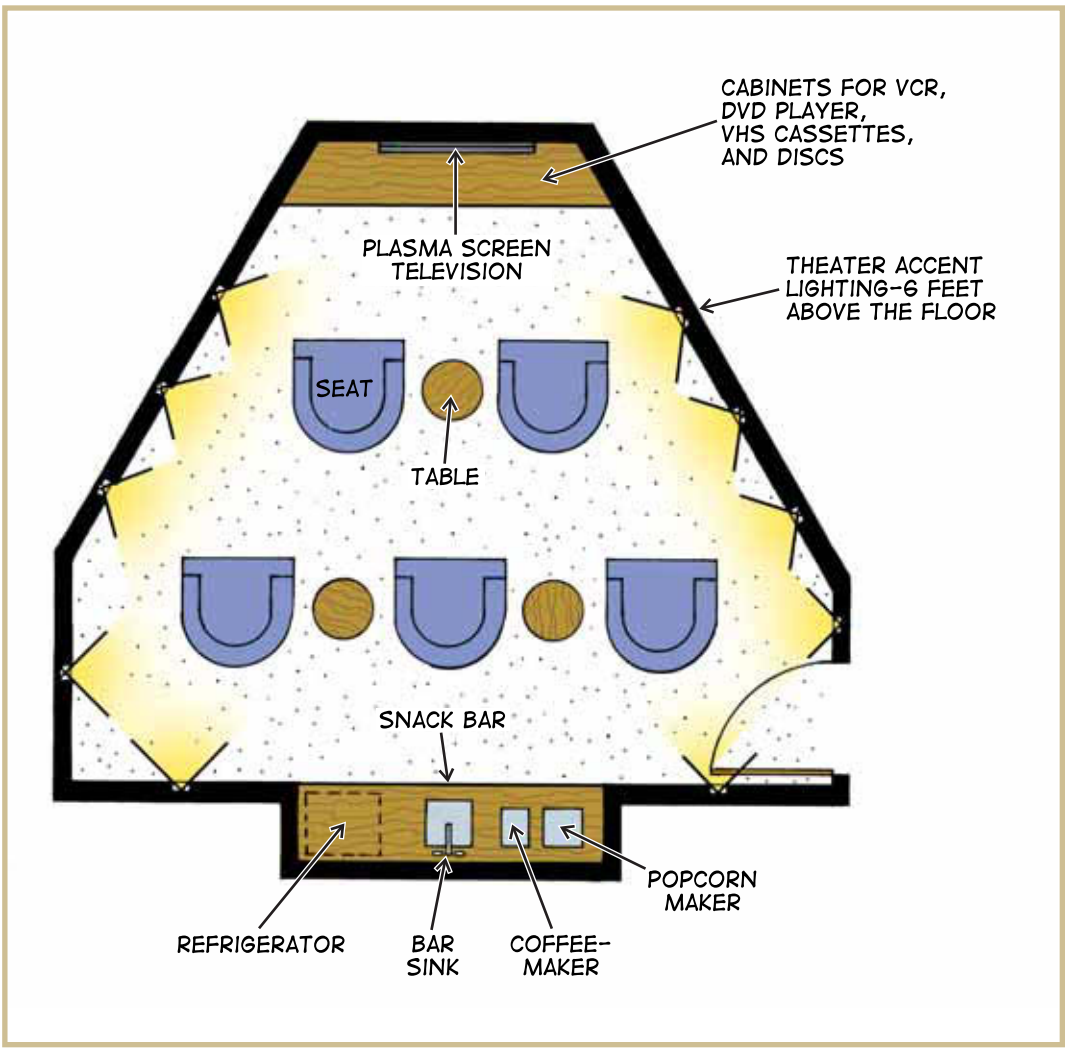

FIGURE 16—This theater resembles a standard movie theater with angled walls, aisles, staggered seating, and theater accent lighting in the walls.

Interviewing Your Clients

Interview your clients carefully about the types of uses they intend to make of their home entertainment center. Here are some suggested questions:

- Will the room be used exclusively for television and movie viewing, or will the main screen be used for games and Internet activities as well?
- Will both children and adults be using the room?
- How many people must the room accommodate at one time?
- What part will food play in the room? Will it be limited to snacks, for instance, or will entire meals be served in the room?
- What new equipment will be needed?
- What is the budget?

Once these questions are answered, find out everything else you can about how your clients envision the room. Not everyone has the same entertainment needs or presumptions. If you're familiar with the latest home entertainment technology, you'll be able to recommend new possibilities that your clients will welcome.

Television Terms

You don't have to be an expert in every technological device in your clients' homes, but a little working knowledge of the basic types of televisions in use today will help you avoid sounding out of touch with basic developments. Here are some standard terms you should be familiar with.

Types of Display

CRT (cathode-ray tube). Cathode-ray tubes are the picture tubes that have been used in televisions for years. They're thick, bulky, and heavy. Figure 17 illustrates a cathode-ray tube, along with a television that would use such a tube. Televisions that use CRTs have a slightly rounded screen.

Tip: CRT screens can't be bigger than 40 in. diagonally.

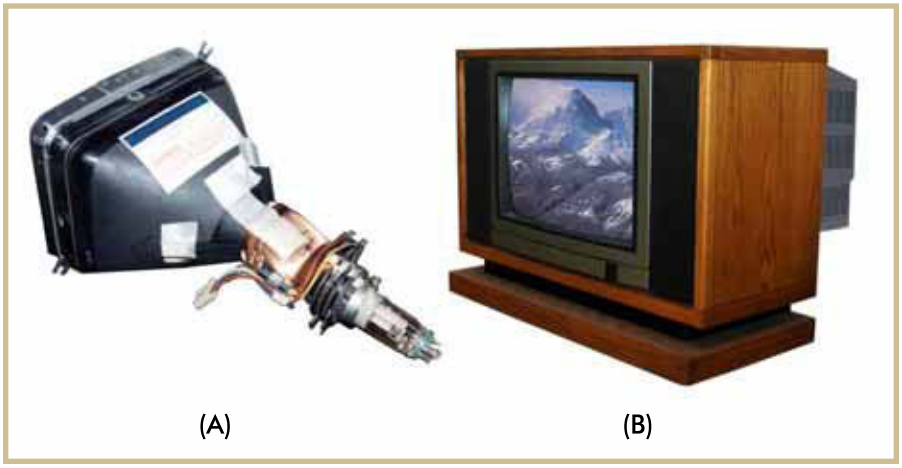

FIGURE 17—A cathode-ray tube like that in view A is used in televisions like that in view B.

LCD (liquid-crystal display). Color LCD panels are used in laptops and other flat-screen computer monitors, as well as flat-screen televisions. Figure 18 illustrates a flat-panel television that uses LCD. These televisions are much thinner and less bulky that those with CRTs.

FIGURE 18—A flat-screen LCD television (view A) is much thinner and lighter than a television that uses a CRT. View B shows the television in a side view. Notice how thin it is in comparison to the television in Figure 17.

Resolution

The term *resolution* refers to the measure of clarity and sharpness of an image on a television or computer screen. It's related to the number of pixels that can be displayed on the screen. The greater the number of pixels that can be displayed, the clearer and sharper the picture. Below are three common resolutions:

- SDTV (standard-definition television)
- EDTV (enhanced-definition television)
- HDTV (high-definition television)

SDTV is the standard in digital resolution. It provides a quality picture. EDTV provides a higher-quality image than SDTV, and HDTV provides the highest-quality image.

A *pixel* is one of the small units that make up an image on a computer or television screen. The term is derived from the words *picture* and *element.*

Choosing a Television

If a client is purchasing a new television, he or she will probably be getting one with a flat screen. Flat-screen televisions have reduced the depth required for the television and have created the option of mounting the viewing screen on a wall (Figure 19). Flat-screen televisions are also available with very large screens. As a result, less depth, but more width is needed than ever before. The television in Figure 19B illustrates how large some of these screens are.

(A) (B)

FIGURE 19—Flat-screen televisions can stand alone on a television stand or in an armoire (view A), or they can be mounted on the wall (view B).

As with many other interior decorating elements, budget plays a large role in the televisions your clients choose. Some of the large flat-screen sets can cost thousands of dollars. In addition, mounting a television set on the wall can be a costly venture. Be sure to check the installation fees for wall mounting before you suggest this option to your clients.

Special electrical considerations may be needed in home entertainment rooms. Therefore, you should consult an electrical technician during the floor-planning stage, to be sure all of the electrical needs are met in the most attractive way possible—without the unnecessary clutter of extension cords and electrical strips. The elevation in Figure 20 shows suggested electrical and cable outlets for a wall-mounted unit. In addition to providing outlets for the television and its accessories, include enough outlets around the room in case your clients want to add a lamp, a coffeemaker, a small refrigerator, or any other electrical device.

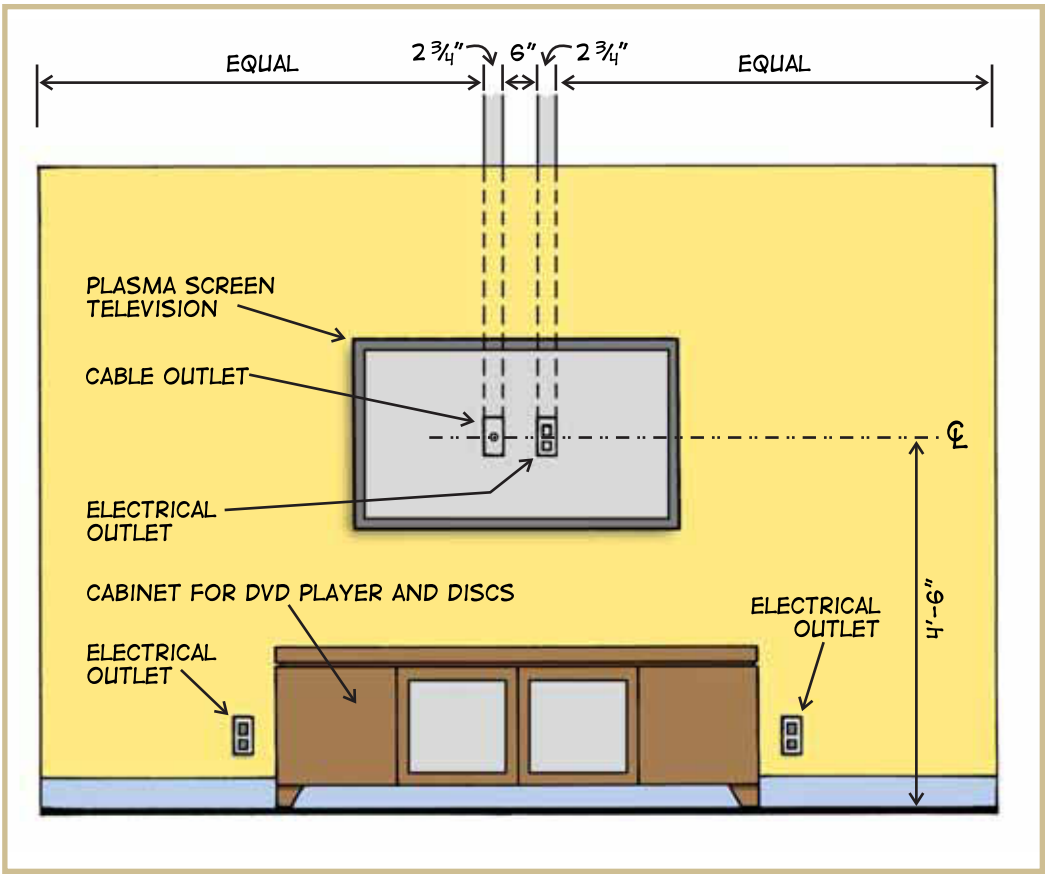

FIGURE 20—To avoid unsightly electrical cords and strips, you must plan ahead for outlets for television sets, DVD players, and other electrical equipment associated with television viewing.

Standard television sets are less adaptable. They tend to take up a conspicuous amount of room, as well. The preferred way to handle these sets is to hide them inside an armoire or home entertainment furniture that has been specifically designed for that purpose.

How Much Room Is Required for a Big-Screen TV?

Big, flat-screen displays look great mounted on a wall. But if your clients don't realistically have room for one, you must help them recognize that fact. Generally, seating should be a distance of 1.5 to 3.0 times the screen width away from the set. For example, if your client has a screen 42 in. wide, seating should be at least 1.5 × 42 in., or 63 in. away from the screen.

The best way to determine the size of a television for a particular room is to measure the room first. Work up some suggested seating to determine the largest size screen the room can support. If the closest seat is 60 in. from the television screen, the largest screen you should recommend is 40 in. wide.

Converting an Armoire

Beautiful armoires—either antique or contemporary—often make wonderful entertainment centers, but they require some adaptation.

First, carefully measure the equipment to be housed inside the armoire. Traditional armoires sometimes lack the depth needed to house a standard television set. If you want to store sound equipment in the armoire as well, be sure to measure it, too.

If the shelves inside the armoire aren't adjustable, you may need a carpenter to make the adjustments. Otherwise, place the television set with any DVD players, TiVo players, sound systems, and gaming systems on the shelves below it.

Holes can be drilled in the back of the armoire for electrical cords, speaker connections, and cables. If there's sufficient room, DVDs and related items can be stored in drawers at the base of the armoire.

Many furniture stores offer armoires with additional cupboards as part of the unit. These can be ideal for entertainment centers, since they allow sufficient storage space for the primary equipment as well as DVDs and CDs.

Custom Cabinetry Designs

Skilled carpenters can also design units especially created for your clients' space requirements. Make sure that you always make contacts with reliable carpenters, so that you can call on them to give estimates and recommendations for custom cabinets. Their photos of beautiful custom units may appeal to your clients and add a valuable new option to their room. Figure 21 illustrates and elegant built-in cabinet that houses an entertainment center.

FIGURE 21—This beautiful built-in entertainment cabinet looks like a piece of furniture when it's closed. It can be opened when the family wishes to watch television.

Special Lighting Requirements

Nothing is worse than trying to watch a movie with a glare across the screen. The groan you hear in a commercial cinema when someone opens the back doors and lets the light in is a familiar response. The movie is a projection of light. Adding a streak of white light or glare across the display is like erasing it before your eyes.

All lighting in a home entertainment room should be designed to eliminate and avoid glare. It's best located at the edge of the room in wall sconces, like the lighting in commercial cinemas. Overhead lighting may also be provided in a home entertainment room, but it should be controlled separately.

Pay special attention to the fitting of the door to any home entertainment rooms, as well. A door hung high above the floor may allow enough light in under its bottom edge to cause a glare or distractions. Having the door rehung or adding an overhanging flap to its base may be an option.

Furnishing a Home Entertainment Room

Hours at a time will be spent in home entertainment rooms. Therefore, comfort is one of the most important factors for furniture in those rooms. You can choose from reclining theater seating, swivel chairs, sofas, and sectionals. Soft, plush seating can contribute significantly to your clients' enjoyment of the experience.

The upholstery for furniture in a home entertainment room can be either leather or a very durable fabric. A fabric with a pattern is generally a good choice, because it's unlikely to show stains as much as a solid-colored fabric would. Since snacks are common in a home entertainment room, stains are likely to happen.

Make sure to provide access to table space for each seat in a home entertainment room. Occupants should have a place to put remote controls, drinking glasses, and snacks. Table surfaces can be glass, wood, marble, granite, or high-pressure plastic laminate.

Wall-to-wall carpet is an ideal material for the floor covering in a home entertainment room. Carpeting provides a soft decorating effect and will absorb sound waves to create a quieter environment.

For windows, select treatments with a blackout lining so that the lighting level of the room can be controlled for optimum viewing pleasure. For added convenience, suspend the window treatment from a motorized drapery track with remote control.

The scope of a home entertainment room can vary widely from client to client. You may be asked to recommend furniture and accessories for a simple home entertainment room that will be used almost exclusively by the family; or you may have a client that wants a full-blown theater experience in

his or her home for extensive entertaining. In most cases, however, your clients will request something in between these two. As a decorator, you must be prepared to ask the right questions to find out exactly what your clients want, what they can afford, and what works best in the size room they have. They'll depend on you to make it aesthetically pleasing and functional.

Self-Check 3

1. Resolution on a television screen depends on the number of _____ that it can display.

2. What is a common problem in the conversion of armoires into entertainment centers?

   _____

   _____

3. What are the *best* lighting fixtures for home entertainment centers?

   _____

   _____

4. What are two characteristics of a home entertainment room that set it apart from a more typical home entertainment room?

   _____

   _____

Check your answers with those on page 38.

NOTES

Self-Check 1

1. Research helps provide you with information about how the clients will use the office space, as well as what furniture and equipment they'll require.
2. Providing electrical outlets and window openings on your floor plan will allow you to observe where the furniture and equipment can be appropriately placed.
3. human body measurements
4. Ergonomics is the study of the adaptability of the work-space to match the physical needs of the worker, thereby reducing fatigue and discomfort.
5. Task lighting is the most important lighting in an office after general room lighting.

Self-Check 2

1. In some cases, the space around exercise equipment is needed to use the equipment properly. If enough space isn't allowed, the client can be injured.
2. Rubber matting or flooring can resist scuffs and be damp mopped easily.
3. A fan, boom box, watercooler, refrigerator, television, DVD player, and sound system are only some of the things that may require outlets in a home fitness center.
4. A client may want a television and DVD player in the gym to pass the time while exercising or to use it to play workout videos.

Answers

Self-Check 3

1. pixels
2. Traditional armoires may not have the depth to house a standard television set.
3. Wall sconces are the best option for home entertainment center lighting.
4. A home theater has staggered seating, aisles, and perhaps even a snack bar. These aren't typically used in a home entertainment room.

Special-Purpose Rooms

EXAMINATION NUMBER

01203300

Whichever method you use in submitting your exam answers to the school, you must use the number above.

For the quickest test results, go to http://www.takeexamsonline.com

When you feel confident that you have mastered the material in this study unit, go to http://www.takeexamsonline.com and submit your answers online. If you don't have access to the Internet, you can phone in or mail in your exam. Submit your answers for this examination as soon as you complete it. *Do not wait until another examination is ready.*

Questions 1–20: Select the one best answer to each question.

1. Which room in a home do people generally use as a home office if they don't have a spare room?

   A. Foyer
   B. Dining room
   C. Bedroom
   D. Family room

2. The *main* purpose of mirrors in a home fitness center is to

   A. make the room appear larger.
   B. give added light to the room.
   C. help exercisers check their form.
   D. reduce glare on a television screen.

3. What is the standard height of a desktop?

   A. 28 to 30 in.
   B. 36 in.
   C. 39 in.
   D. 42 to 48 in.

4. Why are wall sconces so valuable in home entertainment rooms?

   A. They're safety features.
   B. They provide attractive light.
   C. They make the room look more like a commercial theater.
   D. They keep glare to a minimum.

Examination

5. The *main* purpose of having doors on a home office armoire is to

   A. reduce static.
   B. conceal the office when it's not in use.
   C. prevent damage from humidity.
   D. reduce ventilation.

6. As a guideline for organizing space, how does *Morgenstern's kindergarten classroom model* divide a room?

   A. Activity zones
   B. Lighting nooks
   C. Cozy niches
   D. Priority categories

7. What type of flooring can cause damage to the circuits in a computer?

   A. Wood
   B. Rubber
   C. Concrete
   D. Carpeting

8. What seating is *best* for a home entertainment room?

   A. Comfortable, reclining chairs
   B. Upright, wooden seats
   C. Plastic chairs
   D. Futons

9. What shape is the *optimal* arrangement for office furniture?

   A. U-shaped
   B. L-shaped
   C. S-shaped
   D. Q-shaped

10. After general room lighting, what is the *most* important type of lighting in a home office?

    A. Track lighting
    B. Accent lighting
    C. Spotlighting
    D. Task lighting

11. Why is fluorescent lighting appropriate for a home fitness center?

    A. It produces a pleasant color.
    B. It produces a soft tone of light.
    C. It's easier to install than incandescent lighting.
    D. It produces less heat than incandescent lighting.

12. What is generally the most expensive aspect of the installation of a home entertainment room?

    A. Furniture
    B. Audiovisual system
    C. Lighting
    D. Flooring

13. The term *HDTV* refers to the _____ of a television picture.

    A. color
    B. size
    C. resolution
    D. display

14. Which one of these fields of study focuses on reducing fatigue in an office?

A. Anthropomorphism
B. Ergonomics
C. Anthropometrics
D. Ontologism

15. What is the *most* durable and easily cleaned flooring for a home fitness center?

A. Rubber
B. Wood
C. Tile
D. Carpet

16. At what level should the top of a computer be?

A. At or below eye level
B. At or slightly above eye level
C. Significantly above eye level
D. Significantly below eye level

17. What is one of the *most* important safety elements to plan for in a home fitness center?

A. Workout space around the equipment
B. Weight of the machines
C. Versatility of the training program
D. Mounting of mirrors

18. What is the *primary* advantage of dual computer monitors?

A. A sleek look
B. Efficiency
C. Improved visibility
D. Color coordination

19. Which of the following fitness equipment requires the *most* space?

A. Stationary bike
B. Treadmill
C. Rowing machine
D. Stair climber

20. What is one characteristic of television sets with cathode-ray tubes?

A. They’re available in extra-large screen sizes.
B. They’re easily mounted on a wall to save space.
C. They’re thick, bulky, and heavy.
D. They’re the latest in digital technology.